Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, DC 20554

In the Matter of	)	
	)	CG Docket No. 17-59
Advanced Methods to Target and Eliminate Unlawful Robocalls	)	
	)	
	)	

COMMENTS OF FIRST ORION CORP.

ON PUBLIC NOTICE DA 18-638

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INTRODUCTION

In its Public Notice DA 18-638, released June 20, 2018, ("Public Notice"), the Consumer and Governmental Affairs Bureau ("Bureau") of the Federal Communications Commission ("FCC" or "Commission") solicited input for the staff report ("Report") previously required by the FCC in its November 2017 Call Blocking Order[1]. First Orion is happy to present the following data and other information to both the FCC and the Federal Trade Commission ("FTC") for use in compiling the Report on progress made in the fight against illegal and unwanted robocalls, as well as remaining challenges in the ongoing battle to protect consumers.

1. How have providers responded to the new permissive rules from the November 2017 Call Blocking Order, which became effective in February 2018?

First Orion supported the Commission's actions which allow providers to *voluntarily* block calls originating from numbers that are invalid, unallocated, or unassigned, as well as the Commission's efforts to formalize the ability of carriers to block calls at the request of the subscriber to the originating number. While not a direct response to the new rules, First Orion's mobile applications and our network solution deployed at T-Mobile have always labeled (rather than blocked) all invalid calls as "Scam Likely," providing the user the option to block individual numbers or block all such labeled calls.

2. What kinds of blocking are providers doing as a result of this and other actions?

First Orion's mobile applications and network solutions do not automatically block calls. Instead, we provide a caller identification solution that labels all calls we believe to be fraudulent with a "Scam Likely" label, identifies other unwanted calls and allows the subscriber to initiate blocking. These caller identification and subscriber-initiated blocking solutions are not currently subject to specific Commission rules. The FCC's "pro-consumer, deregulatory approach"[2] as well as the encouragement offered by both

[1] *Advanced Methods to Target and Eliminate Unlawful Robocalls,* Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 9706,9727 (2017).

[2] *See* Comments of First Orion, Filed February 22, 2018 at 4.

the FCC and the FTC have resulted in what some have referred to as an "explosion" of call management and blocking technologies.

- T-Mobile has clearly been the most aggressive in its attempts to protect its subscribers: today, over 56 million subscribers are protected by T-Mobile's Scam ID and Scam Block services provided by First Orion—at no cost to the subscriber. With Scam ID, we display "Scam Likely" for every call a subscriber receives that we determine is associated with fraudulent activity. About 5% of these subscribers have further opted in for the Scam Block service, which blocks the fraudulent calls before they reach the consumer's device.
- First Orion also offers these features with an over the top Privacy Star app for both Android and iOS as well as its branded services with Tracfone and Boost Mobile.
- CTIA notes that ATT, Verizon and Sprint also offer some form of robocall protection, and that there are over 500 known apps available for consumers to utilize[3].

3. **Industry has made progress toward a standardized system for caller ID authentication, namely SHAKEN/STIR, to address the caller ID spoofing that is frequently used with illegal robocalls. How is that effort progressing and when will it result in consumer benefits?**

As noted in several recent ex parte filings of major carriers,[4] testing of SHAKEN/STIR solutions continues, with most planning to have solutions widely deployed in 2019. For Caller Authentication to be effectively leveraged by analytics companies such as First Orion, it must be widely implemented by carriers. This takes time. It could be 2020 before consumer benefit is seen on a wide scale basis. First Orion would also like to point out that even after it is fully deployed, it will only be one more piece of intelligence in our scam identification algorithms. Not all unauthenticated calls are fraudulent, and some

[3] Comment by Krista Witanowski, Assistant Vice President, CTIA, March 23, 2018 FCC-FTC Joint Policy Forum, Fighting the Scourge of Robocalls, March 23, 2018, *available at* https://www.fcc.gov/fcc-ftc-robocalls-forum at 135:30-45

[4] *See, e.g.*, Ex Parte Notice of T-Mobile, In the Matter of Advanced Methods to Target and Eliminate Unlawful Robocalls, CG Docket No. 17-59 (May 24, 2018).

fraudulent calls will come from authenticated numbers. Authentication, along with other data, helps identify scam calls and makes it easier to do tracebacks after the fact.

4. **The FCC and the FTC make consumer complaint data available to the public. How is the data being used and what are the benefits of its release?**

First Orion accesses the complete FTC file as well as the FCC scam-related database. We use the data as a component of our research and validation processes for identifying fraudulent calls. We support continued release of this information.

Also First Orion is one of very few commercial entities currently providing complaint data (that is, information provided by our mobile subscribers via our mobile applications about unwanted calls they receive) to the Federal Trade Commission for enforcement purposes. First Orion, through its Privacy Star call management products and services, is annually the largest single contributor to the FTC complaint database— typically in a year providing over 30% of the complaints.

5. What criteria do filtering tool providers use in selecting calls for consumers to block or label as illegal or unwanted?

Most providers and analytics companies identify PHONE NUMBERS rather than individual calls when determining what to label or block. As was discussed in previous filings, there are a number of "objective standards" that are used. As noted in earlier filed filings:

Industry guidelines should encourage providers and their partners to use as many objective factors as possible, in combination, to help companies identify presumptively illegal calls with a high degree of certainty. The "in combination" piece cannot be emphasized strongly enough. There is no one method that accurately identifies an illegal call, and when more data factors are considered, the result is always better. Industry should draw on a number of methods for identifying presumptively illegal calls when designing self-regulatory guidelines, including:

1. Performing historical and real-time analytics: Analytics are extremely helpful in determining whether a call is illegal, as well as when it is unwanted but not necessarily illegal. Comprehensive analytics help industry understand changing patterns in call activity which can help identify when illegal spoofing or behavior patterns are occurring. Real-time analytics allow those historic models to be applied to calls as they are made. Validation of the analytics must also be performed on a frequent basis, since the legal status of a number can change often. First

Orion's analytics reveal numbers being illegally spoofed for fraudulent purposes for a short period of time after which the numbers return to making legitimate calls by the rightful owner. Thus, the determination of presumptively fraudulent must be revalidated on a frequent basis.

2. Contacting the subscriber of the spoofed number: Contacting the subscriber can confirm or reject suspected nuisance and illegal calls. Contacting a sample of subscribers where illegal calls are suspected can also be used to refine algorithms.
3. Checking customer complaint sites: Customer complaints or reports, whether filed on a website, through an app, or via other means are a valuable source of information about both nuisance and illegal calls. Feedback loops from both the calling party and the called party are an important part of identifying and improving methods to determine whether a call is presumptively illegal. Calling party feedback can provide valuable information about who the calling party is and why it is calling, which helps reduce "false positives," or the labeling of legitimate calls as potentially illegal. Called party feedback based on the application of objective criteria can help identify both false positives and false negatives (i.e., illegal or unwanted calls that are not flagged).
4. Information from other carriers: As discussed above, information shared among carriers can improve all carriers' ability to identify presumptively illegal calls—but industry solutions based on this information must be thought through and operationalized with care.
5. Making test calls: Test calls are an important method for validating analytic algorithms before they go into production.
6. Understanding as much as possible about the calling party (company, category, etc.): Industries can sometimes be recognized by their call pattern, and such intelligence can be used in conjunction with other data to improve analytical results. Our experience shows that knowing the type of business for a caller (e.g., pharmacy) can help determine whether a call is fraudulent or not because different industries often have different calling practices. Various methods can be used to identify the type of caller or industry.
7. Understanding as much as possible about the reason for the call (informational, telemarketing, collections, etc.): The reason for the call is also important in evaluating whether a call is illegal or not. Legal obligations vary based on the reason for the call. Various methods should be used to try to identify the reason, or suspected reason, for the call, including customer feedback. Whether the call is a robocall or not is only one of the important data points that should be considered.
8. Caller ID authentication: Caller ID authentication should be one factor among many that companies consider before blocking a call.
9. Call Origination: Analytics of the various technologies and methods used to originate phone calls can also provide important data points about potentially fraudulent calls. While it is not easy to obtain and utilize these data points, we believe these and other similar techniques provide very relevant and important decision criteria when available[5].

Finally, First Orion is on a migration path toward analyzing individual calls, rather than phone numbers, to identify scam and nuisance calls based upon proprietary call fingerprinting technology.

[5] *See* Comments of First Orion, Filed July 3, 2017 at 10-13.

6. What products are available and what are their platform limitations (e.g., VoIP-only).

First Orion's network solution can be deployed to support consumers on any network, including wireless, VoIP and TDM. With such network integration, consumers have access to the entire range of First Orion services, from call identification or tagging ("Scam Likely," for example) as well as call categorization and blocking capabilities.

Without in network integration, for VoIP and TDM First Orion can enhance traditional Caller ID with our analytics data to warn consumers of fraudulent and unwanted calls as discussed below.

Mobile consumers can also utilize our applications on both Android and iOS devices, whether the 'over the top' Privacy Star applications or our branded services with Tracfone and Boost Mobile.

7. What settings are available to the consumer (e.g., what types of calls may the consumer choose to block or label), and how effective and popular are they?

For those T-Mobile subscribers and millions of other wireless subscribers who use our applications, we provide important information about billions of inbound calls—information that helps consumers decide how they would like to handle incoming phone calls. Our call identification solutions (also known as tagging or labeling) identify suspected fraudulent calls as "Scam Likely," and potentially unwanted, abusive, or illegal calls as "Nuisance Likely," "Telemarketer," "Survey," or other categories as appropriate, similar to the categories suggested in the Report issued by the Robocall Strike Force[6]. In most deployments, the consumer is provided with an alert indicating that the call may be a "scam" call or a "nuisance" call, along with caller name, category, and risk score. The consumer is given the opportunity to block the number in the future or even block an entire category such as all high-risk scores, as well as take advantage of other custom settings. This solution allows consumers to also control the receipt of calls that they do not want, but are not illegal. At a minimum, our approach allows consumers to "see"

[6] *See* Robocall Strike Force, Robocall Strike Force Report at 22 (2016), https://transition.fcc.gov/cgb/Robocall-Strike-Force-Final-Report.pdf (Strike Force Report).

what kind of call they are getting and then decide how those calls should be treated. First Orion's approach creates a balance between protecting consumers against fraudulent calls and supporting the interests of legitimate callers. First Orion's solutions appropriately put consumers in control of their preferences for phone calls.

8. What is the cost to consumers?

T-Mobile's Scam ID and Scam Block are free to the subscriber. To reiterate, T-Mobile provides protection from fraudulent calls to virtually every one of its subscribers—at no cost to the subscribers. The basic scam ID feature is also free in many of our apps. Our call management apps offer other features ranging from $.99 to $2.99 per month.

9. What tools are available for traditional copper landlines?

As mentioned, First Orion's in-network solution offers the entire range of call identification and call blocking functionality to traditional copper landline consumers. We can also offer enhanced call identification without network integration. A service similar in concept was recently deployed by Verizon for its Fios customers. For certain questionable calls, Verizon will supplement the traditional Caller ID with the designation "Spam?."

10. We seek data and other information, including notable trends in illegal robocalling including for a baseline period of January 2018. In addition to total call volume over a given period of time, we seek disaggregation by voice service provider, type of call (landline, VoIP, wireless), month, type of scam (IRS, grandparent scam, etc.), call origin (domestic or international), and any other relevant detail.

There are several trends we should mention that First Orion has observed since January of 2018. First, the number of calls we routinely identify as "Scam Likely" on a daily basis has stayed relatively consistent at about 11-12% of total calls we have analyzed (almost 50 billion). First Orion recently passed the 5.5 billion mark for calls identified as scams since deployment of our T-Mobile solution in

April 2017. However, as we test our new call fingerprinting approach, which differentiates scam calls at the individual call level, rather than at a phone number level, we believe that the total number of scam calls we will identify may rise to as high as 15% or even higher. We know we aren't catching all of the scam calls subscribers receive.

Second, the number of calls First Orion has identified as false positives, calls incorrectly labeled as a scam when instead they are from a legitimate call originator, is a very small fraction of 1 percent. Furthermore, we expect the accuracy of identifying scam calls to continue to improve over time. As reported in other filings, legitimate call originators have a way to report and rectify false positives with our solutions.

Third, the scammers use very sophisticated techniques to recognize when labeling and blocking solutions are stopping their calls from getting through, and they quickly adopt new tactics, much like legitimate companies do, to get their calls through. We do not expect their analytical sophistication or their tactics to mimic legitimate callers will change. This means that analytical approaches to identifying scam calls will have to continuously evolve over time.

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Respectfully submitted,
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